

Alert



The **Alert** newsletter provides monthly updates on transportation and air quality planning activities within the Delaware Valley.

October 2024

Regulation Enforcement

EPA Highlights Actions to Address the Illegal Importing of Hydrofluorocarbons into the United States

On September 6, 2024, the United States Environmental Protection Agency (EPA) issued an [Enforcement Alert](#) highlighting its recent civil and criminal actions taken against companies that illegally imported bulk quantities of hydrofluorocarbons (HFCs) into the country. The alert also serves as a reminder to other companies to ensure their practices comply with recently enacted regulations designed to begin “phas[ing] down the production and consumption of HFCs” in the U.S.

Hydrofluorocarbons are a group of chemical compounds defined by the presence of hydrogen, carbon, and fluorine atoms. HFCs are frequently used in both industrial processes and household products as refrigerants, aerosol propellants, solvents, and fire retardants. They are the most common form of a broader category of fluorine-containing greenhouse gases known as fluorinated gases. [According to the EPA](#), fluorinated gases are generally “the most potent and longest lasting type of greenhouse gases emitted by human activities.”

The extent to which a gas contributes to the greenhouse effect, and therefore exacerbates climate change, depends both on how well it traps heat in the atmosphere, known as its radiative efficiency, and how long it stays in the atmosphere, known as its lifespan. To compare greenhouse gases across these differences, metrics known as [Global Warming Potentials](#) (GWPs) were developed to estimate how much a gas will increase global temperatures over a specified period of time, most commonly 100 years. Carbon dioxide (CO₂) is defined as having a GWP of 1, meaning that releasing 1 ton of methane, which has a GWP of 30, will result in approximately the same rise in global temperatures after 100 years as releasing 30 tons of CO₂. For comparison, HFCs can have GWPs of up to 12,400 and other fluorinated gases have GWPs in excess of 20,000. However, even these very high figures may not entirely encapsulate the impact of fluorinated gases due to their exceptionally long lifespans: up to 270 years for HFCs and up to tens of thousands of years for other fluorinated gases.

In recognition of the environmental impacts HFC can have even in relatively small concentrations, the American Innovation and Manufacturing Act was passed by Congress in 2020 and gave the EPA new authorities and directives to “phase down the production and consumption of listed HFCs in the United States by 85% over the next 15 years, manage these HFCs and their substitutes, and facilitate the transition to next-generation technologies that do not rely on HFCs.”

Since January 1, 2022, it has been illegal for anyone to import, produce, or consume bulk quantities of HFCs without a valid allowance. Three types of allowances are granted by EPA: production and consumption allowances, which are based on the amount of HFCs produced and consumed in previous years, and “application-specific allowances” for certain critical industries. All of these allowances, which must be approved by EPA before being “spent,” are measured in terms of the total GWP of the allowed substances. After being granted, the allowances are only valid for one calendar year, and unused allowances cannot be saved or rolled over into future years.



Save the Date

Thursday

January 9, 2025

US EPA Clean School Bus Rebates

Application Period Closes

For more information visit:
<https://www.epa.gov/clean-schoolbus/clean-school-bus-program-rebates>

Wednesday

February 5, 2025

NJ DEP Green Acres Grants

Applications Due

For more information visit:
dep.nj.gov/grantandloanprograms/green-acres-nonprofit-acquisition-grants/

The EPA has also created an [HFC Data Hub](#) to show how the allowances have been allocated to various industries. In 2023, the EPA approved HFC production allowances with a total GWP equivalent to 344 million metric tons of CO₂ (MMTCo₂e). Over 98 percent of these allowances were allocated to just four companies: Honeywell, Chemours, Koura, and Arkema. However, the HFC Data Hub also shows that 177 of 344 MMTCo₂e of HFC production allowances approved went unused. For comparison, DVRPC's [Priority Climate Action Plan](#) found that, in 2019, on-road vehicles in the DVRPC region emitted 19.4 MMTCo₂e.

These regulations were put in place by EPA to ensure the United States complied with its commitments under the Kigali Amendment to the Montreal Protocol on Substances that Deplete the Ozone Layer. The original Montreal Protocol, finalized in 1987, is a global agreement responsible for the widespread phase-out of ozone-depleting substances (ODSs) such as chlorofluorocarbons (CFCs). It was written as a large and growing body of scientific evidence was warning that humanity's use of ODSs was rapidly depleting the stratospheric ozone layer. Ozone, while considered a pollutant when present at ground-level, is a critical component of the atmosphere due to its role in blocking ultraviolet radiation that warms the Earth and causes skin cancer.

Over 30 years later, it remains one of the few treaties to be ratified by all members of the United Nations and a prime example of effective global policymaking. According to the [United Nations Environment Programme](#), 98 percent of ODSs have been phased out since 1990, and the ozone layer has begun healing with a near complete recovery expected by the middle of this century. The EPA estimates that, in the U.S. alone, the Montreal Protocol will prevent 443 million cases of skin cancer, approximately 2.3 million skin cancer deaths, and more than 63 million cases of cataracts in Americans born between 1890 and 2100.

Electric Vehicles

PennDOT Looks Ahead to Next Stage of National Electric Vehicle Infrastructure Program

As the 91 federally funded electric vehicle (EV) charging projects along the Commonwealth's Alternative Fuel Corridors (AFCs) start to come online, the Pennsylvania Department of Transportation (PennDOT) has begun planning for the next stage of the National Electric Vehicle Infrastructure (NEVI) Program. The NEVI Program is a \$5 billion formula funding program created by the Bipartisan Infrastructure Law of 2021 that aims to build out a national network of DC fast charging (DCFC) stations along designated AFCs. PennDOT was allocated \$171.5 million over five fiscal years to ensure that the Commonwealth's AFCs, which include its interstate highways as well as select U.S. routes, have a qualifying DCFC station located within one mile of an exit every 50 miles along the corridor. Since the beginning of the NEVI Program, PennDOT has solicited proposals for 91 charging stations at strategic locations across Pennsylvania that will fill the remaining gaps along the Commonwealth's AFCs. Once the Federal Highway Administration certifies that the AFCs are "fully built out," PennDOT will be allowed to spend the remaining funds on charging stations elsewhere.

In anticipation of this certification, PennDOT recently released a [Post-AFC Framework for Electric Vehicle Infrastructure](#) that details how the Commonwealth will spend the remaining federal funds across four focus areas: corridor connections, community charging, critical investments, and EV workforce development. The Post-AFC Framework estimates that at least \$102 million in NEVI funds will remain after the certification is received, of which \$75-80 million is expected to go to a community charging program to support charging infrastructure in municipal parking lots, along streets, and near popular destinations in cities and towns. As part of the community charging program, the Pennsylvania portion of the DVRPC region is expected to receive \$28-32 million with \$14-18 million going specifically to Philadelphia. The community program will have an emphasis on equity and is set to involve extensive public and stakeholder outreach. The Framework plans for \$10-15 million to be spent on charging along "corridor connections," which are a set of U.S. and state routes selected by PennDOT that serve as important corridors for long distance travel but did not have enough traffic volume to be designated an AFC. None of the corridor connections listed in the Framework are in the DVRPC region. Additionally, \$5-10 million is planned to be spent on "critical infrastructure" needs that are not addressed by other funding sources, such as a medium-/heavy-duty EV charging pilot or infrastructure at PennDOT park-and-ride facilities. Finally, the Framework intends to allocate \$4-6 million for workforce development in fields related to EV charging.



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